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XL.—*On Mammals collected at Cruz del Eje, Central Cordova, by Mr. P. O. Simons**. By OLDFIELD THOMAS.

AFTER his successful collecting work on the Bolivian Plateau Mr. Perry O. Simons travelled by rail to Antofagasta, by sea to Valparaiso, and then over the Andes through Mendoza to Central Cordova, where at Cruz del Eje, in the salina district of that country, he made, *in ten days only*, the collection now described.

Apart from the co-types of *Dolichotis salinicola*, few mammals have ever been recorded from this salina country, and the present collection is therefore proportionally valuable.

The most interesting things in the collection are undoubtedly the specimens of *Dolichotis*, showing as they do that a form of the Greater Mara (*D. magellanicus*) lives side by side with the small *D. salinicola*. This fact, hitherto unrecognized, is probably partly the cause of the confusion into which the proper relationship of the smaller to the larger species has fallen.

The new skunk (*Conepatus proteus*) is also surprisingly different from the ordinary Argentine *C. suffocans*.

1. *Vespertilio* sp.

♂. 27th November, 1901.

* While this paper is in the press news has been received that Mr. Simons, the most successful mammal collector that I have ever had to deal with, has fallen a victim to his intrepidity, and has been murdered by a guide when crossing the Andes alone with him. Brave to a fault, cheery and enthusiastic, fond of a wild life, successful as a trapper, painstaking, systematic, and extraordinarily rapid in his work, Mr. Simons was the perfection of a collector, and we shall not easily find his like again. I shall hope to publish later a summary of his Andean journeys and their scientific results.

2. *Lasiurus borealis* * *salinæ*, subsp. n.

♀ and 4 young †.

Similar in general characters to the other races of *L. borealis*, but with the ears short and apparently as in *L. b. teliotis*, and with duller and less rufous coloration. The feet appear to be rather longer than usual (see measurements).

Ears very short, their outer basal lobe reduced almost to nil, and without any anterior notch or angle at its insertion. Fur of wings and interfemoral membranes very sparse and thin, but its distribution apparently as usual; patch on base of thumb and hairs of back of foot thicker than the rest.

General colour of body (in spirit) dull grizzled greyish, almost without rufous, the only specimen at all like it that I have seen being one of *L. semotus*, H. All., from Hawaii. Individual hairs blackish at base, then buffy whitish, then dark, with the extreme tips white. A slight tendency towards rufous is perceptible on the interfemoral hairs, and those on the back of the feet are bright rufous. Wing-membranes dark brown, lighter along the edges of the interdigital spaces.

Dimensions of the type (measured in spirit):—

Forearm 42 millim.

* I can by no means accept Dr. Allen's recent alteration of my identification of Azara's "Chauve-Souris septième" from the local race of *Lasiurus cinereus* to that of *L. borealis*, a determination I came to after most carefully weighing the claims of the three Paraguayan *Lasiuri* to this doubtful honour. I freely grant that the "envergure" given by Azara (313 millim.) is a good deal below the corresponding dimension in fresh and well-stretched specimens of *L. cinereus*; but if Azara's specimens were a little dry and stiff, or immature, the discrepancy would easily be made up, while nothing will give any specimen of *L. borealis* an ear-length of 15 millim. The trunk and tail-lengths may be considered to fit either. Thus one of Mr. Dinelli's Tucuman specimens of *cinereus* is labelled as measuring in the flesh: head and body 70 millim.; tail 48; ear 14.5—a sufficiently close correspondence with Azara's 62, 50, and 15 millim. But the primary point is the coloration. With such conspicuously different and brilliantly coloured bats as *L. cinereus* and *borealis* the first thing that would strike any, and especially any non-technical, observer is the hoary or whitish-washed colour of *cinereus* and the brilliant rufous of *borealis*. Now Azara says "le poil est . . . d'un brun très-blanchâtre," an expression perfectly applicable to *cinereus*, hopelessly at variance with the coloration of either *borealis* or *ega*.

The colour of the body and the size of the ear appear therefore to me to settle the question, and consequently I still consider Geoffroy's name *villosissimus* to be applicable to the local form of the "très-blanchâtre" *Lasiurus cinereus*.

† From the method of labelling Mr. Simons would appear to have thought that the four young ones were the offspring of the single female. Such an occurrence as four young in a bat is, I believe, unheard of, and I shall hope later to publish further details on the subject.

Head and body 59; tail 47; head 16; ear 11; tragus on inner edge 3·7; third finger, metacarpus 44, first phalanx 17; fifth finger, metacarpal 37, first phalanx 8; lower leg 22; hind foot, c. u. 10*.

Type. Old female. B.M. no. 2.2.5.39. Original number 1724. Killed 2nd December, 1901.

This specimen is so different from any of the bright-coloured continental forms of *L. borealis* that I am compelled to consider it as representing a peculiar form. Indeed, further knowledge will not improbably show it to be worthy of specific rank.

3. *Felis Geoffroyi*, d'Orb.

♀. 28th November, 1901.

4. *Canis gracilis*, Burm.

2 ♀. 30th November, 1901.

5. *Conepatus proteus*, sp. n.

4 ♂, 2 ♀, and 2 young.

Size very small, less than in *C. Humboldti* and *suffocans*, the smallest species previously known. Fur thin, soft, and poor, far softer and less thick than in *C. suffocans*. Hairs either directed backwards throughout or forwards from the withers to the crown. Coloration of body very variable, the two white stripes either joined or not on the crown, narrow, almost obsolete, and reaching only half down the back in the least white specimen, and ranging from this to an example in which the stripes are complete and extend on to the sides of the base of the tail. Tail of medium length, the hairs of its basal half entirely black, those of its end black, profusely mixed with longer white hairs, which form a grizzled whitish terminal tuft.

Skull, as usual in this group, only differing from that of its allies by size.

Dimensions of the type:—

Head and body 265 millim. (range 245–305); tail 190; hind foot, s. u. 48 (range 42–52), c. u. 53; ear 25.

Skull: greatest length 63; basal length 55; zygomatic breadth 36; mastoid breadth 32·7; interorbital breadth 16·5; palate length from gnathion 25·5; upper molar 8 × 6.

Hab. Cruz del Eje, 600 m.

* From posterior side of calcar 8·3, the corresponding measurement in a Bolivian *borealis* 6·8.

Type. Adult male. B.M. no. 2. 2. 5. 3. Original number 1716. Killed 30th November, 1901.

The British Museum possesses three skunks obtained by Mr. E. Lindner at Esperanza, Santa Fé, and these may be considered as topotypically representing *C. suffocans*, for Azara * says of his "Yagouaré" (on which the name *suffocans* is based) that "the most northern point at which I have found it is in 29° 40' S. latitude"; and as all his movements and observations were up and down the River Paraná, the point at which this latitude crosses the river may be taken as the type locality.

These specimens all have the hairs of the tail whitish for their basal halves, with their ends black, a coloration of the hairs only found elsewhere in the Patagonian species *C. Humboldti*. This arrangement is quite different from that in *C. proteus*, where, more as in the various Andean species, each hair is unicolor, either black or white, the white surpassing the black at the end of the tail and forming there a whitish tuft. In the two baby specimens, 5 inches in length, the tail is very conspicuously bicolor, black for its basal and white for its terminal half.

But the most noticeable point about this species is its great variability in the extent and distribution of the white stripes; for among this set there is one with them reduced as in *C. inca*, others where their development is intermediate, as in *C. arquipae* and *chorensis*, and one with them passing on to the sides of the base of the tail, as in *C. chinga*. In addition, one has the hair reversed forwards from the withers as in *C. porcinus*. But in size *C. proteus* is widely different from any of these Andean forms which it imitates in colour, so that there can be no question as to its specific validity.

6. *Eligmodontia griseoflavus centralis*, subsp. n.

3 adult ♀ and 2 young. 23rd to 30th November, 1901.

Size slightly less than in *E. g. domorum* †. General colour as usual greyish drab above, clearer drab on the sides, more buffy on the rump. Belly pure white, the hairs white to the roots. Ears large, uniformly brown. Hands and feet pure white. Tail well-haired, pencilled terminally, brown above, white below.

* Quadr. Parag. i. p. 211 (1801).

† Although, following the lead of Dr. Allen, I described "*E. domorum*" as a species of the "*E. griseoflavus* group," further consideration convinces me that this is one of the cases where all the local forms of a widely spread animal may be best considered as subspecies of it, thus showing their connexion with each other nomenclaturally.

Skull with the general characters of the group; bullae slightly larger than in *E. g. domorum*, conspicuously smaller than in *E. g. cachina* and *E. g. chacoensis*. Teeth very small, much smaller, and especially narrower, than in any of the allied forms (so far as such measurements can be taken, the breadth of m^1 in *E. g. domorum* is 1·8 millim. and in *E. g. centralis* 1·5 millim.). Supraorbital ridges well marked, with rudimentary postorbital projections. Overhanging point of anterior zygomatic plate well defined.

Dimensions of the type:—

Head and body 130 millim.; tail 156; hind foot, s. u. 27, c. u. 29; ear 26.

Skull: greatest length 33·5; basilar length 26; greatest breadth 17; length of nasals 14; interorbital breadth 5·4; breadth of brain-case 13·5; palate length 14·7; diastema 8·5; length of bulla 6; length of upper molar series 4·5.

Type. Old female. B.M. no. 2. 5. 13. Original number 1691. Killed 23rd November, 1901.

By its small bullae this subspecies is at once separated from all the members of the group except *E. g. domorum*, while both from that and every other it is distinguished by its diminutive molars.

7. *Eligmodontia callosa*, Rengg.

♂. 2nd December, 1901.

8. *Akodon varius*, Thos.

♀. 30th November, 1901.

9. *Ctenomys Bergi*, sp. n.

2 ♂, 1 ♀.

Allied to *C. mendocinus*, Phil., but smaller and with a brown forehead and muzzle.

Size small, though larger than in *C. Pundti*, Nehr., and *C. talarum*, Thos. Fur soft and fine; hairs of back 13–14 millim. in length. General colour above glossy uniform sandy fawn, rather paler on the sides. Under surface also pale fawn, concolor with the sides, not patched with white; the hairs everywhere slaty grey at base. Centre of face from muzzle to between the ears dark glossy brown, conspicuously different from the rest of the animal. No collar or ear-markings. Cheeks and chin like sides of body. Upper surface of hands and feet thinly haired, dull whitish. Tail with an indistinct dorsal crest; thinly haired, scarcely pencilled, pale fawn.

Skull small, narrow, not particularly flattened; upper profile slightly and evenly convex; nasals parallel-sided or evenly narrowing backward. Posterior width on edge of meatus greater than the zygomatic breadth. Bullæ large and evenly inflated. An indication of a groove on the upper surface of the malar in one specimen, not perceptible in the others. Palate ending opposite penultimate molar. Ectocondyloid processes of lower jaw well defined, though small.

Dimensions of the type:—

Head and body 190 millim.; tail 74; hind foot, s. u. 28, c. u. 32; ear 7.

Skull: greatest length in middle line 39; basilar length 33·5; zygomatic breadth 24·7; nasals 13·1 × 6·2; least breadth across brain-case 16; greatest breadth on meatus 25·6; palate length 17; diastema 10·1; length of molar series (alveoli) 8; bullæ 14 × 7·3; least breadth of basioccipital 2·3; greatest breadth across lower jaw 32.

The basilar length of the female skull is 30·4.

Type. Old male. B.M. no. 2. 2. 5. 21. Original number 1693. Killed 25th November, 1901.

This species is half as large again as Dr. Nehring's *C. Pundti*, smaller than *C. mendocinus*, and is also distinguished from both by its dark frontal region.

I have named it in honour of Dr. Carlos Berg, Director of the Buenos Ayres Museum, one of the first zoological explorers in the salina district, and the discoverer of *Dolichotis salinicola*, Burm.*

10. *Dolichotis magellanicus centricola*, subsp. n.

a, b. ♂ ♀. 2nd December, 1901.

Similar in size and general characters to the typical form of Patagonia and Southern Argentina, but the dorsal colour is of rather a clearer and more bluish tone, the fulvous of the cheeks, sides, and thighs is paler and more sandy, the hairs of the ears are sandy and less black, the claws are rather more sharply keeled and compressed, and, finally and chiefly, the dorsal colour is not edged with black behind, the grey passing down without darkening to meet the white of the lower rump.

The last-named character is my chief reason for distinguishing the northern form of the Greater Mara from the southern. Six specimens of the typical form all have the well-known black marking, edging and showing up the white

* Since the above was written news has arrived of the death of Dr. Berg, to the very deep regret of all who had the pleasure of his acquaintance.

of the lower rump, as have all the specimens that have been described by different authors. But Mr. Simons's two specimens from the salina country of Cordova have no trace of this marking, the grey of the back keeping the same tone throughout.

Skull and dentition as in the typical form.

Dimensions of the type:—

Head and body 740 millim.; tail 45; hind foot, s. u. 165, c. u. 180; ear 107.

Skull*: greatest length 138; basilar length 108·5; greatest breadth 66.

Type. Old female. B.M. no. 2. 2. 5. 24. Original number 1721. Killed 2nd December, 1901.

The discovery of the large form of *Dolichotis* in the same country as the little *D. salinicola* is of much interest, for hitherto the latter had been supposed to represent *D. magellanicus* in this region. I have little doubt that the "adult specimens of *D. salinicola*" referred to by Burmeister in his second communication on the subject† really belonged to the present form. The range there given is from Chafiar, close to Cruz del Eje, northwards to Santiago del Estero.

There is a striking difference in the breadths of the nasals in the two specimens, these being 20·5 millim. broad in the measured skull and 25·5 millim. in the other.

It is probable that I shall prove to be wrong in only describing this animal as a subspecies, but in the absence of cranial distinctions and without any certainty that the ranges and characters do not intergrade, I prefer for the present not to call it a separate species.

11. *Dolichotis salinicola*, Burm.

2 ♂, 2 ♀, and two foetuses in spirit. 22nd to 28th November, 1901.

These specimens are of the utmost value to our collections, as, although no one should have any doubt as to the validity of Burmeister's species ‡, yet its distinction from *D. magellanicus* has been called in question by Remy Saint Loup, and, owing to the difficulty of distinguishing old specimens from young in this family, its exact status is still little known.

Some of the confusion has no doubt been caused by the fact that *D. magellanicus centricola*, which has some of its colour-characters, occurs in the same region, and has therefore been not unnaturally taken for the adult of *D. salinicola*.

* Of either *a* or *b*, the labels having been displaced.

† P. Z. S. 1876, p. 461.

‡ Cf. Berg, Com. Mus. Buenos Ayres, i. pp. 23 & 44 (1898), where the rather complicated literary history is clearly traced.

The species is a most distinct one, its skull being barely half the length of that of the larger form; its coloration (as may be seen by Burmeister's figure) is widely different, owing to the absence of the contrasted markings on the rump, while the claws, as pointed out in Weyenburgh's excellent description of his *D. centralis*, are much narrower and more compressed. The skull is remarkably like that of a half-grown *D. magellanicus*, but may be readily distinguished by its more deeply notched palate, which is cut out to the level of m^1 instead of m^2 .

By the kindness of Dr. Berg, of the Buenos Ayres Museum, the original discoverer of the species, the British Museum has been enabled to acquire by exchange one of the co-types. Mr. Simons's specimens are not precisely similar in colour to this, but the difference is probably due to its fading. In any case the Cruz del Eje specimens, should there be any local variation in the species, will represent Weyenburgh's *D. centralis*, described as from Cordova, very shortly after Burmeister's description was published.

12. *Kerodon boliviensis*, Waterh.

♂ ♀. 23rd and 27th November, 1901.

These specimens presumably represent Burmeister's *Cavia leucoblephara*.

13. *Dasyus vellerosus pannosus**, subsp. n.

3 ♂, 3 ♀.

Similar to the true *velerosus* in all essential respects, but far less thickly haired. Although there are a certain number of long hairs ($1\frac{1}{2}$ –2 inches) scattered along the sides, the greater part of the fine hairs which spring from the hinder ends of the scales are quite short, about half an inch long, so that there is no general long hairy coat hiding the scales, as is the case in true *velerosus*.

Of *velerosus* the Museum contains, besides the type from Santa Cruz de la Sierra (*Bridges*), three examples from Tucuman (*Dinelli*) representing both seasons of the year; and these, though varying somewhat in their hairiness, are all conspicuously more thickly clad than any of the six specimens from Cruz del Eje, where, owing to the different, more desert, character of the country, a different subspecies is likely enough to exist.

In neither skull nor scaling can I perceive any constant

* Ragged, half-clothed.

difference, but within Mr. Simons's set there are some variations worthy of note. Thus in some specimens there are only two rows of small scales on the middle line of the shoulder-shield, and in others there are three, others again having an irregular intermediate condition. Then in the skull the variation in the shape of the nasals is very considerable, these being in some long and narrow (breadth about 9 millim.) and in others far broader (12·8 millim.).

Dimensions of the type:—

Head and body 237 millim.; tail 103; hind foot, s. u. 44, c. u. 48; ear 31.

Skull: greatest length in middle line 64·5; basal length 52; zygomatic breadth 41; nasals $22 \times 12\cdot8$; constriction 17; palate length 36.

Type. Old male. B.M. no. 2. 2. 5. 31. Original number 1701. Killed 26th November, 1901.

The type of *D. vellerosus* is rather smaller (skull length 61), but the Tucuman specimens are of the same size as *D. v. pannosus*.

14. *Didelphis Azaræ*, Temm.

♂ ♀. 26th November, 1901.

XLI.—Descriptions of new Genera and Species of Hymenoptera from the Oriental Zoological Region (Ichneumonidæ, Fossores, and Anthophila). By P. CAMERON.

[Concluded from p. 215.]

Sphegidæ.

Ampulex 3-carinata, sp. n.

Metallic green, largely mixed with blue; the scape of the antennæ black; wings hyaline; the space between the base of the stigma and the third transverse cubital nervures smoky; the nervures and stigma black, the latter pale at the base. ♀.

Long. 15–16 mm.

Hab. Borneo.

Head above the antennæ blue, smooth and shining, below them green and densely covered with silvery pubescence; the clypeal keel and the apex of the clypeus testaceous. A